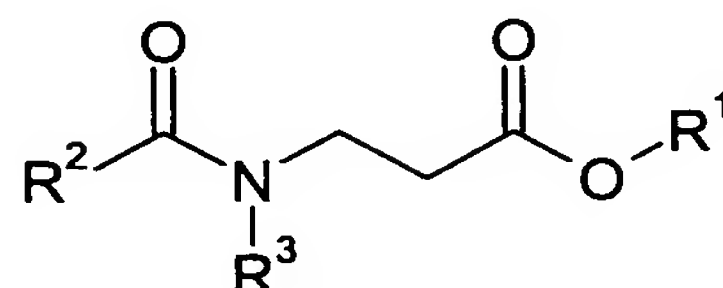


### Patent Claims

1. Use of a compound of the formula I



where R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> may be identical or different and are selected from

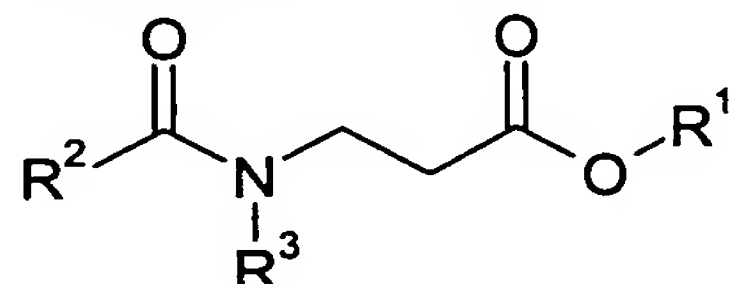
- straight-chain or branched C<sub>1</sub>- to C<sub>24</sub>-alkyl groups,
- straight-chain or branched C<sub>3</sub>- to C<sub>24</sub>-alkenyl groups,
- straight-chain or branched C<sub>1</sub>- to C<sub>24</sub>-hydroxyalkyl groups, where the hydroxyl group may be bonded to a primary or secondary carbon atom of the chain and furthermore the alkyl chain may also be interrupted by oxygen, and/or
- C<sub>3</sub>- to C<sub>10</sub>-cycloalkyl groups and/or C<sub>3</sub>- to C<sub>12</sub>-cycloalkenyl groups, where the rings may in each case also be bridged by -(CH<sub>2</sub>)<sub>n</sub>- groups, where n = 1 to 3,

as formulation assistant for the preparation of cosmetic or dermatological compositions.

2. Use according to Claim 1 of a compound of the formula I according to Claim 1, where the formulation assistant serves as solubiliser.
3. Use according to Claim 1 of a compound of the formula I according to Claim 1, where the formulation assistant serves as penetration enhancer.
4. Use according to Claim 1 of a compound of the formula I according to Claim 1, where the formulation assistant serves as action enhancer.
5. Use according to at least one of the preceding claims, characterised in that ethyl 3-(acetylbutylamino)propionate is excluded from the compounds of the formula I.

- 5 6. Use according to at least one of the preceding claims, characterised in that  $R^1$  and  $R^3$  may be identical or different and are selected from ethyl, n-propyl, isopropyl, n-butyl, iso-butyl, tert-butyl, n-pentyl, n-hexyl, n-heptyl, n-octyl, 2-ethylhexyl, n-decyl, n-dodecyl, n-tetradecyl, n-hexadecyl, n-octadecyl, n-eicosyl, n-docosyl and n-tetracosyl, where  $R^1$  preferably stands for 2-ethylhexyl and/or  $R^3$  preferably stands for n-octyl, 2-ethylhexyl, n-decyl or n-dodecyl.
- 10 7. Use according to at least one of the preceding claims, characterised in that  $R^2$  is selected from the group comprising the elements methyl, n-propyl, isopropyl, n-pentyl, n-heptyl, 1-ethylpentyl, n-nonyl, n-undecyl, where  $R^2$  is preferably selected from the group comprising the elements methyl, 1-ethylpentyl, n-nonyl and n-undecyl.
- 15 8. Use according to at least one of the preceding claims, characterised in that the compound of the formula I is selected from the compounds ethyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate, ethyl N-acetyl-N-(dodecyl)-3-aminopropanoate, ethyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate, butyl N-acetyl-N-(butyl)-3-aminopropanoate, ethyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, ethyl N-(2-ethylhexoyl)-N-(dodecyl)-3-aminopropanoate, butyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate, butyl N-acetyl-N-(dodecyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(dodecyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(butyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(dodecyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-dodecyl)-3-aminopropanoate, where the compound of the formula I is particularly preferably ethyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate.

9. Compound of the formula I



I

where  $R^1$ ,  $R^2$  and  $R^3$  may be identical or different and are selected from

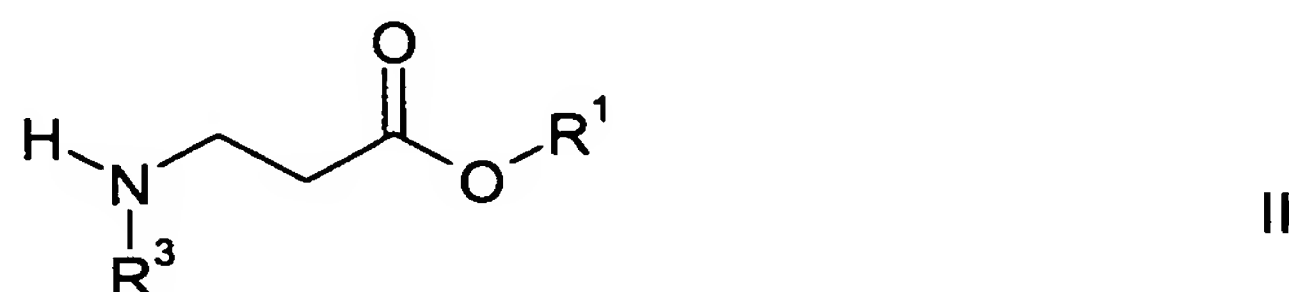
- straight-chain or branched  $C_1$ - to  $C_{24}$ -alkyl groups,
- straight-chain or branched  $C_3$ - to  $C_{24}$ -alkenyl groups,
- straight-chain or branched  $C_1$ - to  $C_{24}$ -hydroxyalkyl groups, where the hydroxyl group may be bonded to a primary or secondary carbon atom of the chain and furthermore the alkyl chain may also be interrupted by oxygen, and/or
- $C_3$ - to  $C_{10}$ -cycloalkyl groups and/or  $C_3$ - to  $C_{12}$ -cycloalkenyl groups, where the rings may in each case also be bridged by  $-(CH_2)_n$ -groups, where  $n = 1$  to  $3$ ,

with the proviso that either  $R^1$  stands for 2-ethylhexyl or  $R^2$  stands for 1-ethylpentyl and  $R^3$  stands for n-octyl, 2-ethylhexyl, n-decyl or n-dodecyl or  $R^2$  stands for methyl and  $R^1$  and  $R^3$  are different or the compound of the formula I is butyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate.

10. Compound according to Claim 9, characterised in that  $R^1$  preferably stands for 2-ethylhexyl and/or  $R^3$  preferably stands for n-octyl, 2-ethylhexyl, n-decyl or n-dodecyl.

11. Compound according to at least one of Claims 9 or 10, characterised in that the compound of the formula I is selected from the compounds ethyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, ethyl N-(2-ethylhexoyl)-N-(dodecyl)-3-aminopropanoate, butyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate, butyl N-acetyl-N-(dodecyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, butyl N-(2-ethylhexoyl)-N-(dodecyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(butyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(2-ethylhexyl)-3-aminopropanoate, 2-ethylhexyl N-acetyl-N-(dodecyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-(butyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-(2-ethylhexyl)-3-aminopropanoate, 2-ethylhexyl N-(2-ethylhexoyl)-N-dodecyl)-3-aminopropanoate.

12. Process for the preparation of a compound of the formula I according to at least one of Claims 9 to 11, characterised in that a compound of the formula II



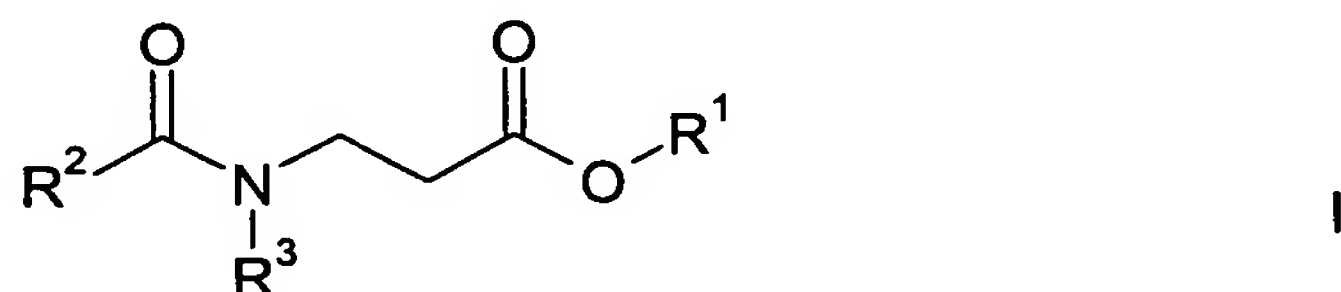
is reacted with an acid derivative  $\text{R}^2-\text{C}(=\text{O})-\text{X}$ , where X stands for  $-\text{Cl}$ ,  $-\text{O}-\text{C}(=\text{O})-\text{R}^4$  or  $-\text{OR}^4$ , where  $-\text{R}^4$  stands for a straight-chain or branched  $\text{C}_1$ - to  $\text{C}_{24}$ -alkyl group, which is preferably identical with  $\text{R}^2$ .

13. Process for the preparation of a compound of the formula I according to Claim 12, characterised in that the compound of the formula II is obtained by reaction of a compound of the formula III



with an amine  $\text{R}^3-\text{NH}_2$ .

14. Composition comprising at least one formulation assistant of the formula I



where  $\text{R}^1$ ,  $\text{R}^2$  and  $\text{R}^3$  may be identical or different and are selected from

- straight-chain or branched  $\text{C}_1$ - to  $\text{C}_{24}$ -alkyl groups,
- straight-chain or branched  $\text{C}_3$ - to  $\text{C}_{24}$ -alkenyl groups,
- straight-chain or branched  $\text{C}_1$ - to  $\text{C}_{24}$ -hydroxyalkyl groups, where the hydroxyl group may be bonded to a primary or secondary carbon atom of the chain and furthermore the alkyl chain may also be interrupted by oxygen, and/or

- C<sub>3</sub>- to C<sub>10</sub>-cycloalkyl groups and/or C<sub>3</sub>- to C<sub>12</sub>-cycloalkenyl groups, where the rings may in each case also be bridged by -(CH<sub>2</sub>)<sub>n</sub>- groups, where n = 1 to 3,

and at least one active substance whose processing and/or use is simplified by the formulation assistant, where ethyl 3-(acetylbutylamino)propionate is excluded from the compounds of the formula I.

15. Composition according to Claim 14, characterised in that the at least one active substance is at least one repellent, preferably selected from N,N-diethyl-3-methylbenzamide, ethyl 3-(acetylbutylamino)propionate, dimethyl phthalate, butopyronoxyl, 2,3,4,5-bis(2-butylene)-tetrahydro-2-furaldehyde, N,N-diethylcaprylamide, N,N-diethylbenzamide, o-chloro-N,N-diethylbenzamide, dimethyl carbate, di-n-propyl isocinchomeronate, 2-ethylhexane-1,3-diol, N-octylbicycloheptenedicarboximide, piperonyl butoxide, 1-(2-methylpropyloxycarbonyl)-2-(hydroxyethyl)piperidine or mixtures thereof, at least one repellent particularly preferably being selected from N,N-diethyl-3-methylbenzamide, ethyl 3-(acetylbutylamino)propionate, 1-(2-methylpropyloxycarbonyl)-2-(hydroxyethyl)piperidine or mixtures thereof.

16. Composition according to Claim 14, characterised in that the at least one active substance is an insoluble or sparingly soluble active substance selected from the group of the organic UV filters, flavone derivatives, chromone derivatives, aryl oximes or parabens.

17. Composition according to at least one of the preceding claims comprising at least one compound of the formula I, characterised in that the composition comprises one or more compounds of the formula I in an amount of 0.01 to 20% by weight, preferably in an amount of 0.1 to 10% by weight.

18. Composition according to at least one of the preceding claims for the protection of body cells against oxidative stress, in particular for reducing skin ageing, characterised in that it preferably comprises one or more further antioxidants and/or vitamins, preferably selected from vitamin A palmitate, vitamin C and derivatives thereof, DL- $\alpha$ -tocopherol, tocopherol E acetate, nicotinic acid, pantothenic acid and biotin.

- 5 19. Composition according to at least one of the preceding claims, where the composition, besides the at least one compound of the formula I, comprises one or more UV filters, which are preferably selected from the group of 3-(4'-methylbenzylidene)-dl-camphor, 1-(4-tert-butyl-phenyl)-3-(4-methoxyphenyl)propane-1,3-dione, 4-isopropylidiben-  
zoylmethane, 2-hydroxy-4-methoxybenzophenone, octyl methoxycin-  
10 namate, 3,3,5-trimethylcyclohexyl salicylate, 2-ethylhexyl 4-(dimethyl-amino)benzoate, 2-ethylhexyl 2-cyano-3,3-diphenylacrylate, 2-phenyl-benzimidazole-5-sulfonic acid and the potassium, sodium and triethanolamine salts thereof.
- 15 20. Process for the preparation of a composition, characterised in that a compound of the formula I containing radicals according to Claim 1 is mixed with a cosmetically or dermatologically suitable vehicle.
21. Use of a compound of the formula I, where the variables have the meaning indicated in Claim 1, for the preparation of a composition which is suitable for topical application.